

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of establishing a persistent relationship between an end user device and a server where the server is one of a plurality of servers managed by a dispatcher and the end user device accesses the server using a universal ~~form~~ resource locator (URL), the method comprising the steps of:

receiving at the dispatcher, a request for information from the end user device;

determining by the dispatcher, which of the plurality of servers to select for satisfying the request;

creating, at the selected server, a token comprising at least an identifier for the selected server, a data/time stamp, and a key, said key for accessing a server-side storage area for information regarding the persistent relationship and the end user device;

inserting the token into the URL; and,

sending, by the selected server to the client device, a response with the token inserted into the URL.

2. (Originally Filed) A method as claimed in claim 1 wherein said token is encoded using a modified Base64 encoding.

3. (Originally Filed) A method as claimed in claim 1 wherein said token has a checksum or hash verification field.

4. (Originally Filed) A method as claimed in claim 3 wherein said hash is a SHA-1 hash computed over said identifier for said selected server, said date/time stamp, and said key.
5. (Originally Filed) A method as claimed in claim 3 wherein said checksum or hash is encoded using a modified Base64 encoding.
6. (Originally Filed) A method as claimed in claim 1 wherein said information regarding said persistent relationship is stored as a cookie on said server.
7. (Currently Amended) A method of routing a request by an end user device to a particular one of a plurality of redundant servers residing behind a network dispatching mechanism, said methods comprising the steps of:
  - receiving, at the network dispatching mechanism, a request for information indicated by a uniform resource locator (URL);
  - determining, at the network dispatching mechanism, if said URL contains a valid routing token;
  - if said URL contains a valid routing token, further determining, at the network dispatching mechanism, if a session binding indicated by said routing token is old;
  - if said URL contains a valid routing token and said routing token is not old, forwarding, by said network dispatching mechanism, the request, including the URL, to the particular server indicated by said valid routing token;
  - removing, by said particular server, said valid routing information from the URL;

storing, by said particular server, said routing information removed from said valid routing token, where said valid routing information can be accessed subsequently by an outbound data stream filter during the processing of an outbound reply related to said request;

accessing, by said particular server, a server-side storage location where session information regarding a session between the particular server and the end user device is stored; and,

inserting, by said particular server, said accessed session information into said request.

8. (Originally Filed) A method as claimed in claim 7 wherein additional filtering of the URL is done prior to the forwarding step.

9. (Currently Amended) ~~A~~The methods as claimed in claim 1 ~~thru 8~~ wherein all filtering is performed within the dispatcher.

10. (Currently Amended) A method of sending information to a requesting end user from an application over a session wherein said application resides at one of a plurality of redundant servers residing behind a network dispatcher, said method comprising the steps of:

receiving response information from said application, said response information including a URL (uniform resource locator);

determining if a server-side key cookie has been used for storing session information between said end user and said application;

if a server-side key cookie has been used for storing session information, retrieving a session key from said key cookie;

if a key cookie was not used for storing session information, retrieving said session key from a control block;

removing all cookies from said response information;

storing said removed cookies in a predetermined server-side storage area;

updating said URL to indicate the removal of said cookies;

creating a sticky routing string;

updating a date/time stamp in said sticky routing string;

inserting said sticky routing string into said URL; and,

transmitting said response information, including said URL to said end user.

11. (Originally Filed) A method as claimed in claim 10 wherein, prior to said determining step, said response information is transmitted from said application through one or more filters.

12. (Currently Amended) A computer program product having computer readable code means of establishing a persistent relationship between an end user device and a server where the server is one of a plurality of servers managed by a dispatcher and the end user device accesses the server using a universal form resource locator (URL), the computer program product comprising:

computer readable code means of receiving at the dispatcher, a request for information from the end user device;

computer readable code means of determining by the dispatcher, which of the plurality of servers to select for satisfying the request;

computer readable code means of creating, at the selected server, a token comprising at least an identifier for the selected server, a data/time stamp, and a key, said key for accessing a server-side storage area for information regarding the persistent relationship and the end user device;

computer readable code means of inserting the token into the URL; and,

computer readable code means of sending, by the selected server to the client device, a response with the token inserted into the URL.

13. (Originally Filed) A computer program product as claimed in claim 12 wherein said token is encoded using a modified Base64 encoding.

14. (Originally Filed) A computer program product as claimed in claim 12 wherein said token has a checksum or hash verification field.

15. (Originally Filed) A computer program product as claimed in claim 14 wherein said hash is a SHA-1 hash computed over said identifier for said selected server, said date/time stamp, and said key.

16. (Originally Filed) A computer program product as claimed in claim 14 wherein said checksum or hash is encoded using a modified Base64 encoding.

17. (Originally Filed) A computer program product as claimed in claim 12 wherein said information regarding said persistent relationship is stored as a cookie on said server.

18. (Currently Amended) A computer program product having computer readable code means for routing a request by an end user device to a particular one of a plurality of redundant servers residing behind a network dispatching mechanism, said computer program product comprising:

computer readable program code for receiving, at the network dispatching mechanism, a request for information indicated by a uniform resource locator (URL);

computer readable program code for determining, at the network dispatching mechanism, if said URL contains a valid routing token;

if said URL contains a valid routing token, computer readable program code for further determining, at the network dispatching mechanism, if a session binding indicated by said routing token is old;

if said URL contains a valid routing token and said routing token is not old, computer readable program code for forwarding, by said network dispatching mechanism, the request, including the URL, to the particular server indicated by said valid routing token;

computer readable program code for removing, by said particular server, said valid routing information from the URL;

computer readable program code for storing, by said particular server, said routing information removed from said valid routing token, where said valid routing information can be

accessed subsequently by an outbound data stream filter during the processing of an outbound reply related to said request;

computer readable program code for accessing, by said particular server, a server-side storage location where session information regarding a session between the particular server and the end user device is stored; and,

computer readable program code for inserting, by said particular server, said accessed session information into said request.

19. (Originally Filed) The computer program product as claimed in claim 18 wherein additional filtering of the URL is done prior to the forwarding step.

20. (Currently Amended) A computer program product having computer readable code means of sending information to a requesting end user from an application over a session wherein said application resides at one of a plurality of redundant servers residing behind a network dispatcher, said computer program product comprising:

computer readable programming means of receiving response information from said application, said response information including a URL (uniform resource locator);

computer readable programming means of determining if a server-side key cookie has been used for storing session information between said end user and said application;

if a server-side key cookie has been used for storing session information, computer readable programming means of retrieving a session key from said key cookie;

if a key cookie was not used for storing session information, computer readable programming means of retrieving said session key from a control block;

computer readable programming means of removing all cookies from said response information;

computer readable programming means of storing said removed cookies in a predetermined server-side storage area;

computer readable programming means of updating said URL to indicate the removal of said cookies;

computer readable programming means of creating a sticky routing string;

computer readable programming means of updating a date/time stamp in said sticky routing string;

computer readable programming means of inserting said sticky routing string into said URL; and,

computer readable programming means of transmitting said response information, including said URL to said end user.

21. (Originally Filed) A computer program product as claimed in claim 20 wherein, prior to said determining step, said response information is transmitted from said application through one or more filters.



22. (Currently Amended) A network dispatcher for establishing a persistent relationship between an end user device and a server where the server is one of a plurality of servers managed by said network dispatcher comprising:

means for receiving a request for information from said end user device, said request for information including a uniform resource locator (URL);

means for determining which of the plurality of servers to select for satisfying said request for information;

means for creating, at said selected server, a token comprising at least an identifier for the selected server, a date/time stamp, and a key, said key for accessing a server-side storage area for information regarding the persistent relationship and the end user device;

means for inserting the token into the URL; and,

means for sending, by the selected server, a response with the token inserted into the URL to the client device.

23. (Originally Filed) A network dispatcher as claimed in claim 22 wherein said token is encoded using a modified Base64 encoding.

24. (Originally Filed) A network dispatcher as claimed in claim 22 wherein said token has a checksum or hash verification field.

25. (Originally Filed) A network dispatcher as claimed in claim 24 wherein said hash is a SHA-1 has computed over said identifier for said selected server, said date/time stamp, and said key.
26. (Originally Filed) A network dispatcher as claimed in claim 24 wherein said checksum or hash is encoded using a modified Base64 encoding.
27. (Originally Filed) A network dispatcher as claimed in claim 22 wherein said information regarding the persistent relationship is stored as a cookie on said server.